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Title: **METHOD AND DEVICE FOR IMPLEMENTING A COINLESS GAMINING ENVIRONMENT**

Enclosed are:

31	pages of specification including abstract
6	sheet(s) of drawings
	an assignment of the invention to:

	Oath/Declaration of Inventor(s)		Newly executed		Copy from a prior application (for contin/div)

	Incorporation by Reference: the entire disclosure of the prior application, from which a copy of the oath or declaration is supplied, is considered to be part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
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	Continuation		Divisional		Continuation-in-Part (CIP)	of prior application No.

Prior application information: Examiner:	Group Art Unit:

CLAIMS AS FILED

	NUMBER FILED	NUMBER EXTRA		RATE	FEE
BASIC FEE				$760	$ 760
TOTAL CLAIMS	78 - 20 =	58	X	$ 18	$1,044
INDEPENDENT CLAIMS	15 - 3 =	12	X	$ 78	$ 936
MULTIPLE DEPENDENT CLAIM PRESENT				$260	$
* Number extra must be zero or larger				TOTAL	$2,740
If applicant has small entity status under 37 CFR 1.9 and 1.27, then divide total fee by 2, and enter amount here.				SMALL ENTITY TOTAL	$

X	A check in the amount of $2,740 to cover the filing fee is enclosed.
X	Commissioner is hereby authorized to charge/credit Deposit Acct. No. 19-2112 as described below. Enclosed is a duplicate of this sheet.
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Signature

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METHOD AND DEVICE FOR IMPLEMENTING A COINLESS GAMING ENVIRONMENT

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention is generally directed to coinless gaming environment, and more particularly, to coinless gaming environment utilizing bar coded gaming coupons.

Description of the Related Art

Centralized gaming systems having a plurality of gaming machines connected to a central processing system are well known in the prior art. Typically, these prior art systems include one or more processors managing wagering and credit data for a variety of gaming machines such as slot machines, pinball machines, and video gaming machines. Most prior art gaming machines include a currency acceptor in which a player can insert paper currency, coins or special tokens distributed by the gaming establishment. Upon the insertion of any of these types of currencies, the gaming machine will validate the amount of currency entered into the machine and will grant the player access to the game stored on the gaming machine.

The prior art also discloses gaming systems in which either a central system or an individual gaming machine maintains a credit balance for the gaming machine such that a player can insert an amount of currency more than is required to play a single game and can successively play until the amount entered is depleted. Additionally, the prior art gaming systems also allow a player to accumulate winnings in the credit balance to be used for future plays. Although a player can receive his or her winnings at any time, players typically use their winnings to fund successive plays.

Many of the prior art gaming systems utilize coins or tokens to distribute winnings

from play of the games. Upon user initiation of a "cash out," the gaming machine distributes the currency in an amount equal to the value of credit accumulated by the player. In some instances, the amount of currency stored in the machine may be insufficient to cover the player's winnings and an attendant must be summoned either to distribute winnings or issue a credit voucher.

The use of coins or tokens in gaming establishments present significant problems to gaming machine players. Because of their physical dimensions, coins are bulky and difficult to transport. Players often are required to carry large containers to transport their winnings from the gaming machines. This type of winnings places burdens on the player in the form of having to carry a typically heavy object over the course of a period of play and to maintain careful watch over the container so as not to lose the winnings. Additionally, the player is exposed to a greater security risk in that an unscrupulous individual can easily ascertain which players have been successful at the gaming machines. Finally, coins or tokens, by the general nature, may be dirty as they are handled by a great number of people throughout a short period of time.

The use of coins or tokens in gaming establishments also present significant problems to the providers of the gaming machines. Gaming machines must be configured to accommodate a sufficient reserve of coins or tokens to provide for a majority of the payoffs to a player. Additionally, in some situations, the gaming machine provider must empty the coins when the machine gets too full. Furthermore, because coins or tokens of different values are typically of different dimensions, each gaming machine must have different inputs to accommodate each value of coin or distinguishing means to accept the variety of dimension coins. Accordingly, because multiple inputs are costly and impractical, some prior art gaming machines limit the denomination of coins which they will accept. Thus, a player wishing to wager a different denomination coin would have to cash out and play another machine. Finally, in terms of the accounting, the gaming

machine providers must maintain an inventory of coins or tokens to accommodate player need and must implement additional machinery and personnel to count the coin.

Some of the prior art systems have implemented a system in which game coupons are incorporated into the gaming system. One such system is disclosed in U.S. Patent No. 5,290,033 to Bittner. The Bittner patent is directed primarily to a gaming machine which dispenses pull-tab game coupons in which the player lifts the tab to determine whether the play is successful. On winning pull-tab game coupons, the value of the amount of winnings is encoded on the coupon to be read by a gaming machine or by a cashier.

The system disclosed in the Bittner patent, and other similar prior art systems, focuses primarily on the value credit won by the player being encoded on the face of the coupon. As such, the central processor in these prior art systems does not participate in dictating the amount of credit represented by each coupon. As mentioned in the Bittner disclosure, encoding the value of credit on the ticket poses significant security risks. The prior art systems address these security concerns by augmenting the system with a secondary encoded random number on the coupon. This secondary random number is referenced to a list in memory which dictates whether the ticket has been cashed in and possibly to verify that the value encoded on the coupon matches a comparison value in memory. Because the prior art system requires both value and security number data, the size of coupon must be sufficiently large to adequately accommodate both numbers or the size of the numbers must be reduced to fit within the area of the gaming coupon. Thus, these system are deficient in effectively providing the most security to the gaming coupon.

Other prior art systems attempt to eliminate the use of coins by the incorporation of magnetic stripe cards or smart cards such as debit or credit cards. Typically, the prior art systems require a user to obtain the card prior to gaming. Because of its inconvenience and because some

customers do not feel comfortable providing to a gaming establishment the information necessary to get a card, most of these type of prior art systems only offer the magnetic stripe reader as a feature for some players and most still retain the coin/currency system of the prior art. Thus, these systems have failed to implement a completely coinless gaming environment.

Because of the inconveniences posed to players and gaming establishment in maintaining a coin-based system and because of the problems associated with a value encoded gaming coupon, there is a need for coinless gaming environment incorporating solely an encoded identifier on the gaming media.

SUMMARY OF THE INVENTION

Based on the above-noted deficiencies in the prior art, it is an object of the invention to provide a coinless gaming environment utilizing solely a unique identifier encoded on a gaming media.

This and other objects of the present invention are implemented in a gaming system for implementing coinless gaming environment having a central processing system interconnected to a plurality of gaming machines and a plurality of change machines. The central processing system includes a processor and a memory having a plurality of memory locations for storing data. Each memory location is identified by a unique address in memory. In communication with the central processing system are a plurality of gaming machines. Each gaming machine contains an input for accepting encoded media, which preferably is a gaming coupon, and an optional input for accepting standard paper currency. The gaming machines also contain an output including a bar code printer for encoded and distributing gaming coupons to a player. Finally, the gaming machines include a

gaming credit display that allows a player to monitor the status of the amount of credit he or she has won.

The central processing system is also in communication with one or more (or none) change machines. Similar to the gaming machines, the change machines include an input for accepting the gaming coupons, an input for accepting paper currency and an output for generating and dispensing encoded gaming coupons. The change machines also include an output for dispensing value either in the form of paper currency and/or coins.

The system of the present invention is implemented by the central processing system in communication with the gaming machines and the change machines disbursed throughout the gaming environment. To initiate a play, a player can first approach the change machine and insert an appropriate amount of paper currency into the input of the change machine. The change machine reads the value represented by the inserted paper currency and stores the value in a memory location in the central processing system memory. The change machine then generates an encoded gaming coupon having a unique identifier with the address of the memory location in a bar code format on the coupon.

Having been issued a gaming coupon, the player is free to use the gaming coupons to initiate one or more games in a gaming machine. To initiate a play, the player inserts the gaming coupon into the input of a gaming machine. The gaming machine accepts the coupon and reads the unique identifier encoded on the coupon. The central memory then accesses the memory location associated with the identifier and credits an individual gaming machine credit balance with the particular gaming machine an amount equal to the credit value stored in memory. As the player continues to game, the gaming machine credit balance is incremented or decremented. If the player wishes to stop playing that particular gaming machine, the gaming machine generates an encoded

gaming coupon by storing the value of the gaming machine credit balance into a different central memory location and generating a gaming coupon with a new unique identifier in bar code format associated with the memory location.

In the event that the player has not exchanged currency for gaming coupons prior to approaching the gaming machines, the present invention also discloses a gaming machine with a paper currency reader which accepts and reads currency and which provides the value of the currency in the individual gaming machine credit balance.

Once the player wishes to receive the cash value encoded in memory, the player can approach any change machine or cashiers station. Similar to initiating a play in a gaming machine, the player inserts the gaming coupon in the change machine input and the unique identifier is read. The appropriate memory location corresponding to the unique identifier is queried and the resulting value stored in memory is dispensed by the change machine.

The system of the present invention implements a coinless gaming environment in which a player is not required to carry bulky coins or tokens. By having a unique identifier encoded on the ticket, the central system can process data quicker and provide security for the system.

Brief Description of the Drawings

The objects and features of the invention noted above are explained in more detail with reference to the drawings, in which like reference numerals denote like elements, and in which:

Fig. 1A is block diagram of the coinless gaming system of the present invention;

Fig. 1B is block diagram of the coinless gaming system of the present invention;

Fig. 2 is representative of a gaming machine implemented in the coinless gaming system of the present invention;

Fig. 3 is representative of a change machine implemented in the coinless gaming system of the present invention;

Fig. 4 is representative of an encoded gaming coupon of the present invention;

Fig. 5 is representative of a memory array utilized by the coinless gaming system of the present invention;

Fig. 6 is flow diagram of the input processes utilized by the gaming machine of the present invention; and

Fig. 7 is a flow diagram of the input process utilized by the change machine of the present invention.

Detailed Description of the Preferred Embodiment

The present invention relates to a method and device for implementing a coinless gaming environment which eliminates the need for any coins or tokens in a gaming establishment.

Figures 1A and 1B denote block diagrams of the coinless gaming system of the present invention, designated generally by the reference numeral 10. The gaming system 10 preferably includes a central processing system 12 which is in communication with a plurality of gaming machines 14, 16 and one or more change machines 30, 32. The central processing system 12 preferably includes a central memory 13 having a plurality of memory locations identifiable by their address and a processor for communication with various machines along the system. In the preferred embodiment, central memory 13 is a non-volatile memory source. As would be understood by someone skilled in the relevant art, several types of memory would be considered within the scope of the present invention. Processor 15 is preferably a stand alone computer system

whose processing and communications capabilities vary with the size and demands of the gaming system 10.

In communication with central processing system 12 are a plurality of gaming machines 14, 16. The present invention discloses two embodiments of gaming machines, who share identical functions, and are only different with respect to a structural variation. In the first embodiment, gaming machine 14 includes gaming machine processor 18, credit display 20, combined bar code reader/currency reader 22, and bar code printer 24. Gaming machine processor 18 can include a variety of processors necessary to establish communication with central processing system 12 and to carry out the functions of the particular games. Credit display 20 is a standard display unit for electronically displaying a number representative of the amount of credit a player has accumulated. Combined bar code reader/currency reader 22 is a single unitary unit which can accept and read either an encoded media or paper currency. One such reader is disclosed in U.S. Patent No. 5,290,033 to Harold Bittner and is incorporated herein by reference. Finally, bar code printer 24 is a printing unit for generating data and symbols of a variety of media, preferably a paper stock. Such units are commonly known throughout the relevant art. As would be understood, bar code printer 24 would vary with the type of printing media (i.e., paper stock, laminate) and with the printing method (i.e., text, magnetic).

In an alternative embodiment, gaming machine 16 includes the gaming machine processor 18, the credit display 20 and the bar code printer 24. However, the gaming machine 16 does not include a combined bar code reader/currency reader 22, but incorporates a separate bar code reader 26 and currency reader 28. Although structurally different, the function of gaming machine 14 and gaming machine 16 does not vary. As a third embodiment, gaming machine 16 may also be

limited solely to a bar code reader 26 as an input. Finally, gaming machine 16 may also include partially or wholly preprinted coupons in lieu of, or in combination with, bar code printer 24.

Figure 2 is representative of a preferred gaming machine 14. In this embodiment, gaming machine 14 includes a video screen 40, display 20, input 44, buttons 46, 48 and output 50. Preferably, the gaming machine 14 is a video gaming machine or a mechanical reel gaming machine. As would be understood, any variety of gaming machines could be utilized with the present invention, including but not limited to slot machines, poker machines, keno machines, instant lottery machines, lottery machines and any other type of gaming machine. Video screen 40 is typically understood in the general art to generate the game to be implemented by the gaming machine 14. Display 20 electronically represented a numeral reflecting an amount of credit accounted to the player playing the game. Input 44 coincides with combined bar code reader/currency reader 22 by offering a single opening for a player to insert a variety of payment means. Gaming machine 14 can include a variety of buttons 46, 48. Preferably, there is a cash out button 46 and a pay with credit 48 on gaming machine 14. As would be understood, any touch screen display eliminating the need for buttons would be considered within the scope of the present invention. Output 50 coincides with bar code printer 24 to allow a printed media to exit the gaming machine.

As would be understood, gaming machine 16 (not pictured) would have similar structures for the video screen 40, display 20, buttons 46, 48, but would include an additional input slot to accommodate the two inputs. Furthermore, gaming machine 16 could also accommodate any additional inputs such as magnetic cards, free-play coupons or any other additional coded media.

Also in communication with the central processing system 12 are one or more change machines 30, 32 or change station 33. The present invention also discloses two embodiments of the change machine who have some structural differences, but have identical functions. In the first

embodiment, the change machine 30 includes change machine processor 34, display 20, combined bar code reader/currency reader 22, bar code printer 24 and currency dispenser 36. Change machine processor 34 can include a variety of processors necessary to establish communication with the central processing system 12 and carry out the function of the change machine. Currency dispenser 36 includes any standard gaming dispenser which can output paper currency and/or coins upon receipt of an appropriate input signal.

In a second embodiment, change machine 32 includes change machine processor 34, credit display 20, currency dispenser 36 and bar code printer 24, but incorporates a separate bar code reader 26 and currency reader 28. Although structurally different, the function of change machine 30 and change machine 32 does not vary.

Figure 3 is representative of the preferred change machine 30. In this embodiment, change machine 30 includes input 44, credit display 20, currency output 52 and encoded ticket output 50. Change machine 30 is designed to be implemented remotely from the gaming machines, but interspersed throughout a gaming establishment to allow players access to cash in money and to cash out winnings. As would be understood, change machine 30 can also be integrated into a gaming machine 14,16 as a single machine. Change machine 32 (not pictured) would have similar structures in the display 20, currency dispenser 52 and encoded ticket output 50, but would include an additional input slot to accommodate the two inputs.

With reference to Figure 1B, central processing system 12 may also be in communication with change station 31. Change station 31 includes combined bar code reader/currency reader 22 and bar code printer 24, or the separate variations, but would require an attendant to accept cash for tickets or dispense winnings as is known in the prior art. As would be

understood, change station 31 may be implemented into the gaming system 10 as a substitute or in conjunction with change station 30, 32.

Preferably, central processing system 12 is in communications with any permutation of gaming machines 14, 16, change machines 30,32 and/or change stations 31. In the preferred embodiment, communications are established via preexisting communication components and protocols. As would be understand a dedicated communications link to implement the coinless gaming environment of the present invention would be considered within the scope of the present invention.

Figure 4 is representative of the preferred encoded media of the present invention, referenced generally by gaming coupon 54. Gaming coupon 54 is preferably constructed of a paper stock which can accept printing from bar code printing and is of a rectangular dimension that can be easily handled by a player. As would be understood, different dimensions and sizes of gaming coupon 54 would be considered with the scope of the present invention.

In the preferred embodiment, gaming coupon 54 includes a variety of printed text 56 on one or more faces of the coupon 54. Printed text 56 can include visual indications of the amount of credit the user has accumulated, trademarks or logos from the gaming establishment and any other customized marketing messages. Although used to relay information to the player from the gaming establishment, printed text 54 is not utilized as a primary information source for the coinless gaming system 10.

Also located on the face of the gaming coupon 54 are at least one area of encoded text and/or numerals, which preferably is a bar code 58. Bar code 58 contains a single unique identifier, which can be printed as a single bar code row or as a combination of bar codes. Bar code 58 contains the primary information source for the coinless gaming system 10.

Figure 5 is representative of memory array 60 utilized by the coinless gaming system 10. Memory 13 is organized into memory array 60 having a plurality of memory locations characterized by one or more fields. As illustrated in Fig. 5, memory array 60 includes an address field 62, value field 64, paid status field 65 and security field 67 as columns and various rows 66 of inputted data. Preferably, the memory array 60 is indexed by address field 62, such that the remaining fields in the array 60 are referenced to address field 66. As would be understood, memory array 60 can include additional fields such as terminal identification, time/date, player identification or other demographic data. Additionally, array 60 may be single sorted table or a relational database indexed by address field 66.

With continued reference to Figure 5, address field 62 corresponds to bar code 58. In the preferred embodiment, address field 62 is encrypted into a numerical sequence as illustrated at 68. Numerical sequence 68 is preferably a number larger than address field 66 for security purposes. As would be understood, there are a variety of encryption methods that would be considered within the scope of the present invention. In an alternative embodiment, numerical sequence 68 is a unique random number which is associated with address field 62 via a relational database.

Figure 6 is a flow diagram of the input process utilized by gaming machines 14, 16. In Step S600, a player inserts either currency or gaming coupon 54 into reader 22. At Step S610, the reader determines whether the inputted media is currency or a coupon 54. If the media is currency, the reader validates the appropriate amount represented by the currency in Step S620. After validating the currency, the value of currency is transferred to central processing system 12 as credit to gain access to the game in Step S625.

If at Step S610, reader 22 determines that the inputted media is a gaming coupon 54, reader 22 reads bar code 58 from coupon 54 and transfers numerical sequence 68 to central processing system 12 in Step S630. Upon receiving numerical sequence 68 decoded from bar code 58, in Step S640 central processing system 12 determines if numerical sequence 68 is a valid code. If numerical sequence 68 is valid, value field 64 is added to the gaming machine credit balance to gain access to the game in Step S650. Furthermore, in Step S660, the paid field 70 is marked as positive to prevent further payment of the coupon 54. If at Step S640, numerical sequence 68 is not valid, central processor 12 directs gaming machine 14, 16 to display an error message in Step S670. At this point, the entire process resets for the next input.

Figure 7 is a flow diagram of the input processes utilized by change machines 30, 32. In Step S700, a player inserts either currency or gaming coupon 54 into reader 22. At Step S710, reader 22 determines whether the inputted media is currency or gaming coupon 54. If the media is currency, reader 22 validates the appropriate amount represented by the currency in Step S720. After validating the currency, the value of the currency is stored in memory 13 in Step S730 and a gaming coupon 54 is generated with a unique identifier encoded thereon in Step S740.

If at Step S710, reader 22 determines that the inputted media is a gaming coupon 54, reader 22 reads bar code 58 from the coupon 54 and transfers numerical sequence 68 to central processing system 12 in Step S750. Upon receiving numerical sequence 68 from bar code 58, in Step S760 central processing system 12 determines if numerical sequence 68 is a valid code. If numerical sequence 68 is valid, change machine 30, 32 distributes currency in the amount equal to value field 64 in Step S770. Furthermore, in Step S780, the paid field 70 is marked as positive to prevent further payment of the coupon 54. If at Step S760, the numerical sequence 68 is not valid,

central processing system 12 directs change machine 30,32 to display an error message in Step S790. At this point, the entire process resets for the next input.

The invention is considered to have been described in such full, clear, concise and exact terms as to enable a person of ordinary skill in the art to make and use the same. It will be apparent to those skilled in the art, that a person understanding this invention may conceive of changes or other embodiments or variations, which utilize the principles of this invention without departing from the broader spirit and scope of the invention as set forth in the appended claims. All are considered within the sphere, spirit and scope of the invention. The specification and drawings are, therefore, to be regarded in an illustrative rather than restrictive sense. Accordingly, it is not intended that the invention be limited except as may be necessary in view of the appended claims or their equivalents, which particularly point out and distinctly claim the subject matter applicant regards as its invention.

We claim:

1. A gaming system for implementing a coinless gaming environment, said system comprising:

a central processing system including a memory having a plurality of memory locations identified by a unique address;

a permanent coded media having encoded thereon only a unique identifier, said identifier corresponding to said unique address in said central processing system memory; and

a plurality of gaming machines having an input for accepting said permanent coded media and an output for distributing said coded media;

wherein said gaming machine input accepts said coded media, reads said unique identifier, and transmits said identifier to said central processing system;

wherein said central processing system accepts said transmitted code and accesses data in said central processing memory; and

wherein upon completion of a play said central processor stores in said memory data associated with said play and said gaming machines dispenses a coded media having said unique identifier associated with said memory location encoded thereon.

2. The gaming system as recited in claim 1, wherein said encoded media is a gaming coupon.

3. The gaming system as recited in claim 2, wherein said encoding is a bar code.

4. The gaming system as recited in claim 1, wherein said plurality of gaming machines further include an input for accepting currency and transferring a signal representing a value represented by said currency to said central processing system.

5. The gaming system as recited in claim 1, wherein said data stored in said central processing system memory includes an amount of credit.

6. The gaming system as recited in claim 5, wherein said data further comprises player demographic data.

7. The gaming system as recited in claim 1, wherein said encoded media is a magnetic stripe card.

8. The gaming system as recited in claim 1, wherein said encoded media is a smart card.

9. The gaming system as recited in claim 1, wherein said gaming machines further include a gaming credit display, said gaming credit display displaying an amount of credit associated with said unique identifier on said encoded media.

10. The gaming system as recited in claim 1 further comprising a plurality of change machines, said change machines having

an input for accepting currency and said encoded media; and

an output for distributing said encoded media and for distributing currency;

wherein said change machine input accepts currency, transmits a signal representing value represented by said currency and returns encoded media having encoded thereon said unique identifier; and

wherein said change machine input accepts said encoded media, reads said unique identifier and transmits a signal representing said unique identifier to said central processing system.

11. The gaming system as recited in claim 10, wherein said encoded media is a gaming coupon and said encoding is a bar code.

12. The gaming system as recited in claim 11, wherein said plurality of change machines are remote from said plurality of gaming machines.

13. The gaming system as recited in claim 11, wherein said plurality of change machines are incorporated into said plurality of gaming machines.

14. A gaming system for implementing a coinless gaming environment, said gaming system comprising:

a central processing system having a processor and a memory having a plurality of memory locations identified by a unique address;

a gaming coupon having encoded thereon only a unique identifier, said identifier corresponding to said unique address in said central processing system memory; and

a plurality of gaming machines having an input for accepting said gaming coupons and for accepting currency and an output for distributing said gaming coupons;

wherein said gaming machine input accepts said gaming coupons, reads said unique identifier, and transmits said identifier to said central processing system;

wherein said gaming machine input accepts said currency, and transmits value represented by said currency to said central processing system;

wherein said central processing system accepts said transmitted unique identifier and accesses data in said central processing memory; and

wherein upon completion of a play said central processor stores in said memory data associated with said play and said gaming machines dispenses a gaming coupon having said unique identifier associated with said memory location encoded thereon.

15. The gaming system as recited in claim 14, wherein said data stored in said central processing system memory includes an amount of credit.

16. The gaming system as recited in claim 15, wherein said data further comprises player demographic data.

17. The gaming system as recited in claim 14 further comprising a plurality of change machines, said change machines having

an input for accepting currency and said gaming coupons; and

an output for distributing said gaming coupons and for distributing currency;

wherein said change machine input accepts currency, transmits a signal representing value represented by said currency and returns said gaming coupons having encoded thereon said unique identifier; and

wherein said change machine input accepts said gaming coupons, reads said unique identifier and transmits a signal representing said unique identifier to said central processing system.

18. The gaming system as recited in claim 17, wherein encoding is a bar code.

19. The gaming system as recited in claim 18, wherein said plurality of change machines are remote from said plurality of gaming machines.

20. The gaming system as recited in claim 19, wherein said plurality of change machines are incorporated into said plurality of gaming machines.

21. A gaming system for implementing a coinless gaming environment, said gaming system comprising:

a central processing system, said central processing system including a memory having a plurality of memory locations identified by a unique address for storing value;

a plurality of gaming machines; and

a plurality of change machines, said change machines having an input for accepting currency and for accepting gaming coupons, and an output for distributing said gaming coupons and for distributing currency;

wherein said change machine input accepts currency, transmits a signal representing value represented by said currency and returns said gaming coupons having encoded thereon said unique identifier; and

wherein said change machine input accepts said gaming coupons, reads said unique identifier and transmits a signal representing said unique identifier to said central processing system.

22. The gaming system as recited in claim 21, wherein said encoding is a bar code.

23. The gaming system as recited in claim 22, wherein said plurality of change machines are remote from said plurality of gaming machines.

24. The gaming system as recited in claim 22, wherein said plurality of change machines are incorporated into said plurality of said gaming machines.

25. The gaming system as recited in claim 22, wherein at least one of said change machines is incorporated into at least one of said plurality of said gaming machines.

26. A gaming system for implementing a coinless gaming environment, said gaming system comprising:

a central processing system, said central processing system including a memory having a plurality of memory locations identified by a unique identifier for storing value;

a plurality of gaming machines; and

a plurality of change machines, said change machines having a first input for accepting currency, a second input for accepting said gaming coupons, an first output for distributing said gaming coupons and an second output for distributing currency;

wherein said change machine input accepts currency, transmits a signal representing value represented by said currency and returns said gaming coupons having encoded thereon said unique identifier; and

wherein said change machine input accepts said gaming coupons, reads said unique identifier and transmits a signal representing said unique identifier to said central processing system.

27. The gaming system as recited in claim 26, wherein said encoding is a bar code.

28. The gaming system as recited in claim 27, wherein said plurality of change machines are remote from said plurality of gaming machines.

29. The gaming system as recited in claim 27, wherein said plurality of change machines are incorporated into said plurality of said gaming machines.

30. The gaming system as recited in claim 27, wherein at least one of said change machines is incorporated into at least one of said plurality of said gaming machines.

31. A gaming system for implementing a coinless gaming environment, said gaming system comprising:

a central processing system having a processor and a memory having a plurality of memory locations identified by a unique address;

a gaming coupon having encoded thereon only a unique identifier, said identifier corresponding to said unique address in said central processing system memory; and

a plurality of gaming machines having an input for accepting said gaming coupons and for accepting currency and an output for distributing said gaming coupons;

a plurality of change machines, said change machines having an input for accepting currency and for accepting gaming coupons, and an output for distributing said gaming coupons and for distributing currency;

wherein said change machine input accepts currency, transmits a signal representing value represented by said currency and returns said gaming coupons having encoded thereon said unique identifier;

wherein said change machine input accepts said gaming coupons, reads said unique identifier and transmits a signal representing said unique identifier to said central processing system;

wherein said gaming machine input accepts said gaming coupons, reads said unique identifier, and transmits said identifier to said central processing system;

wherein said gaming machine input accepts said currency, and transmits value represented by said currency to said central processing system;

wherein said central processing system accepts said transmitted unique identifier and accesses data in said central processing memory; and

wherein upon completion of a play said central processor stores in said memory data associated with said play and said gaming machines dispenses a gaming coupon having said unique identifier associated with said memory location encoded thereon.

32. The gaming system as recited in claim 31, wherein said encoding is a bar code.

33. The gaming system as recited in claim 32, wherein said gaming machine output includes a bar code printer.

34. The gaming system as recited in claim 33, wherein said plurality of change machines are remote from said plurality of gaming machines.

35. The gaming system as recited in claim 33, wherein said plurality of change machines are incorporated into said plurality of said gaming machines.

36. The gaming system as recited in claim 33, wherein at least one of said change machines is incorporated into at least one of said plurality of said gaming machines.

37. A method for implementing a coinless gaming environment, said method comprising:

establishing a central memory having a plurality of memory locations identified by a unique address;

accepting currency from a player;

transmitting a signal representing value represented by said currency to said memory;

storing said value in said memory and returning a unique address from said memory;

generating a gaming coupon having only said unique address encoded thereon as a unique identifier; and

distributing said gaming coupon to said player.

38. The method for implementing a coinless gaming environment as recited in claim 37, wherein said gaming coupon encoding is printing a bar code on said gaming coupon.

39. A method for implementing a coinless gaming environment, said method comprising:

accepting a gaming coupon having a unique identifier encoded thereon from a player;

reading said unique identifier on said gaming coupon;

accessing credit data stored in a memory location corresponding to said unique memory identifier; and

distributing currency equal to said accessed credit data to said player.

40. The method for implementing a coinless gaming environment as recited in claim 39 further comprising deleting said credit data in said memory location after accessing the data.

41. The method for implementing a coinless gaming environment as recited in claim 39, wherein said reading of said unique identifier includes scanning a bar code.

42. A method for implementing a coinless gaming environment, said method comprising:

accepting a gaming coupon having a unique identifier encoded thereon from a player;

reading said unique identifier on said gaming coupon;

accessing credit data stored in a memory location corresponding to said unique memory identifier; and

providing said player with credit equal to said accessed credit data.

43. The method for implementing a coinless gaming environment as recited in claim 42 further comprising deleting said credit data in said memory location after accessing the data.

44. The method for implementing a coinless gaming environment as recited in claim 42, wherein said reading of said unique identifier includes scanning said bar code.

45. A method for implementing a coinless gaming environment, said method comprising:

establishing a central memory having a plurality of memory locations identified by a unique address;

accepting currency from a player;

storing said value in said memory and returning a unique address from said memory;

generating a gaming coupon having only said unique address encoded thereon as a unique identifier;

distributing said gaming coupon to said player;

accepting said gaming coupon having a unique identifier encoded thereon from said player;

reading said unique identifier on said gaming coupon;

accessing credit data stored in a memory location corresponding to said unique memory identifier; and

providing said player with credit equal to said accessed credit data.

46. The method for implementing a coinless gaming environment as recited in claim 45 further comprising deleting said credit data in said memory location after accessing the data.

47. The method for implementing a coinless gaming environment as recited in claim 46, wherein said gaming coupon encoding is printing a bar code on said gaming coupon.

48. The method for implementing a coinless gaming environment as recited in claim 47, wherein said reading of said unique identifier includes scanning said bar code.

49. A method for implementing a coinless gaming environment, said method comprising:

accepting a gaming coupon having a unique identifier encoded thereon from a player;

reading said unique identifier on said gaming coupon;

accessing credit data stored in a memory location corresponding to said unique memory identifier; and

providing said player with credit equal to said accessed credit data;

deleting said credit data in said memory location after accessing the data;

maintaining an accounting of said player's credit;

upon completion of play, storing said credit accounting in said memory and returning a unique address from said memory;

generating a gaming coupon having only said unique address encoded thereon as a unique identifier;

distributing said gaming coupon to said player.

50. The method for implementing a coinless gaming environment as recited in claim 49, wherein said gaming coupon encoding is printing a bar code on said gaming coupon.

51. The method for implementing a coinless gaming environment as recited in claim 47, wherein said reading of said unique identifier includes scanning said bar code.

52. A method for implementing a coinless gaming environment, said method comprising:

accepting a permanently coded media having a unique identifier encoded thereon from a player;

reading said unique identifier on said coded media;

accessing credit data stored in a memory location corresponding to said unique memory identifier; and

providing said player with credit equal to said accessed credit data;

deleting said credit data in said memory location after accessing the data;

maintaining an accounting of said player's credit;

upon completion of play, storing said credit accounting in said memory and returning a unique address from said memory;

generating a second coded media having only said unique address encoded thereon as a unique identifier;

distributing said coded media to said player.

53. A method for implementing a coinless gaming environment, said method comprising:

accepting a gaming coupon having a unique identifier encoded thereon from a player;

reading said unique identifier on said gaming coupon;

accessing credit data stored in a memory location corresponding to said unique memory identifier; and

providing said player with credit equal to said accessed credit data;

deleting said credit data in said memory location after accessing the data;

maintaining an accounting of said player's credit;

upon completion of play, storing said credit accounting in a different memory location and returning a unique address from said memory;

generating a second said gaming coupon having only said unique address encoded thereon as a unique identifier;

distributing said second said gaming coupon to said player.

54. The method for implementing a coinless gaming environment as recited in claim 53, wherein said gaming coupon encoding is printing a bar code on said gaming coupon.

55. The method for implementing a coinless gaming environment as recited in claim 54, wherein said reading of said unique identifier includes scanning said bar code.

56. A gaming machine for implementation in a coinless gaming environment, said gaming machine comprising:

a processor;

an input for accepting a permanent coded media having encoded thereon only a unique identifier; and

an output for generating said coded media;

wherein said gaming machine input accepts said coded media, reads said unique identifier, and transmits said identifier to a central processing system; and

wherein upon completion of a play said gaming machine dispenses said coded media representing an amount of value accumulated by a player.

57. The gaming machine as recited in claim 56, wherein said coded media is a gaming coupon.

58. The gaming machine as recited in claim 57, wherein said encoding is a bar code.

59. The gaming machine as recited in claim 56, wherein said output includes a bar code printer.

60. The gaming machine as recited in claim 56 further comprising a display, said display for visually indicating an amount of credit retained for a player.

61 The gaming machine as recited in claim 56, wherein said coded media is a smart card.

62. The gaming machine as recited in claim 56, wherein said coded media is a magnetic stripe card.

63. A gaming machine for implementation in a coinless gaming environment, said gaming machine comprising:

a processor;

an input for accepting a permanent coded media having encoded thereon only a unique identifier;

an input for accepting currency; and

an output for generating said coded media;

wherein said gaming machine input accepts said coded media, reads said unique identifier, and transmits said identifier to a central processing system;

wherein said gaming machine input accepts currency and credits a player account with the amount represented by said currency; and

wherein upon completion of a play said gaming machine dispenses said coded media representing an amount of value accumulated by said player in said player account.

64. The gaming machine as recited in claim 63, wherein said coded media is a gaming coupon.

65. The gaming machine as recited in claim 65, wherein said encoding is a bar code.

66. The gaming machine as recited in claim 63, wherein said output includes a bar code printer.

67. The gaming machine as recited in claim 63 further comprising a display, said display for visually indicating an amount of credit retained for a player.

68. The gaming machine as recited in claim 63, wherein said coded media is a smart card.

69. The gaming machine as recited in claim 63, wherein said coded media is a magnetic stripe card.

70. The gaming machine as recited in claim 63, wherein said input is a combined bar code reader and currency reader.

71. A change machine for implementation in a coinless gaming environment, said change machine comprising:

a processor;

an input for accepting a permanent coded media having encoded thereon only a unique identifier;

an input for accepting currency;

an output for generating said coded media; and

an output for distributing currency to a player;

wherein said change machine input accepts said coded media, reads said unique identifier, and transmits said identifier to a central processing system;

wherein upon receipt of said coded media, said change machine dispenses currency equal to an amount of value accumulated by said player in a player account.

wherein said change machine input accepts currency and credits said player account with the amount represented by said currency; and

wherein said change machine dispenses said coded media representing an amount of value accumulated by said player in said player account.

72. The change machine as recited in claim 71, wherein said coded media is a gaming coupon.

73. The change machine as recited in claim 72, wherein said encoding is a bar code.

74. The change machine as recited in claim 71, wherein said output includes a bar code printer.

75. The change machine as recited in claim 71 further comprising a display, said display for visually indicating an amount of credit retained for a player.

76. The change machine as recited in claim 71, wherein said coded media is a smart card.

77. The change machine as recited in claim 71, wherein said coded media is a magnetic stripe card.

78. The change machine as recited in claim 71 wherein said input is combined bar code reader and currency reader.

ABSTRACT OF THE DISCLOSURE

A gaming system for implementing coinless gaming environment having a central processing system interconnected to a plurality of gaming machines and a plurality of change machines. The central processing system includes a processor and a memory having a plurality of memory locations for storing data. Each memory location is identified by a unique address in memory. In communication with the central processing system are a plurality of gaming machines having an input for accepting encoded media and an input for accepting standard paper currency. The gaming machines also contain an output including a bar code printer for encoding and distributing gaming coupons to a player. The central processing is also in communication with one or more change machines having an input for accepting gaming coupons, an input for accepting paper currency and an output for generating and dispensing encoded gaming coupons and an output for dispensing value either in the form of paper currency and/or coins. By interspersing gaming machines and change machines in a gaming establishment, the gaming establishment can eliminate the use of coins or tokens.

Fig.1A.

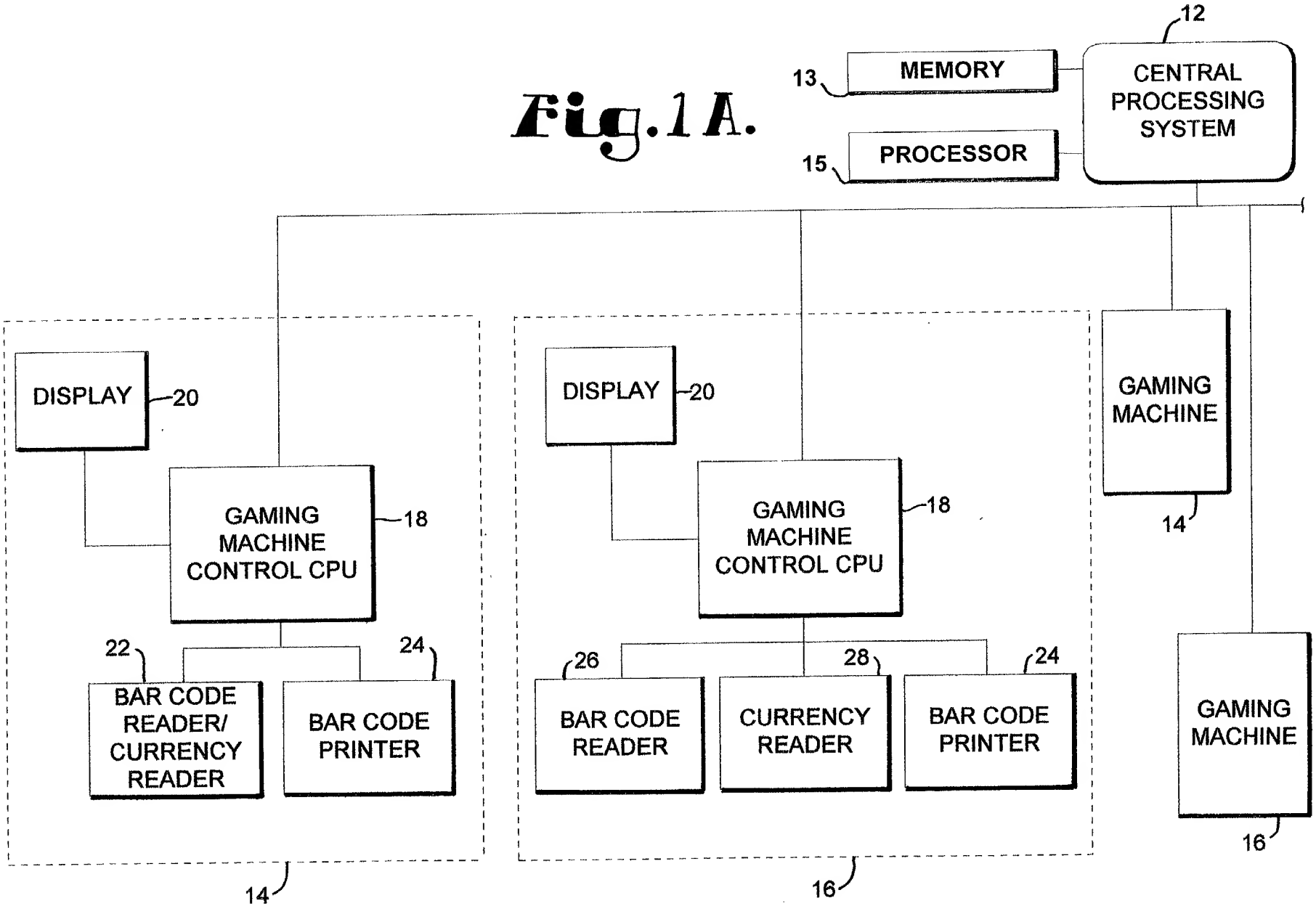
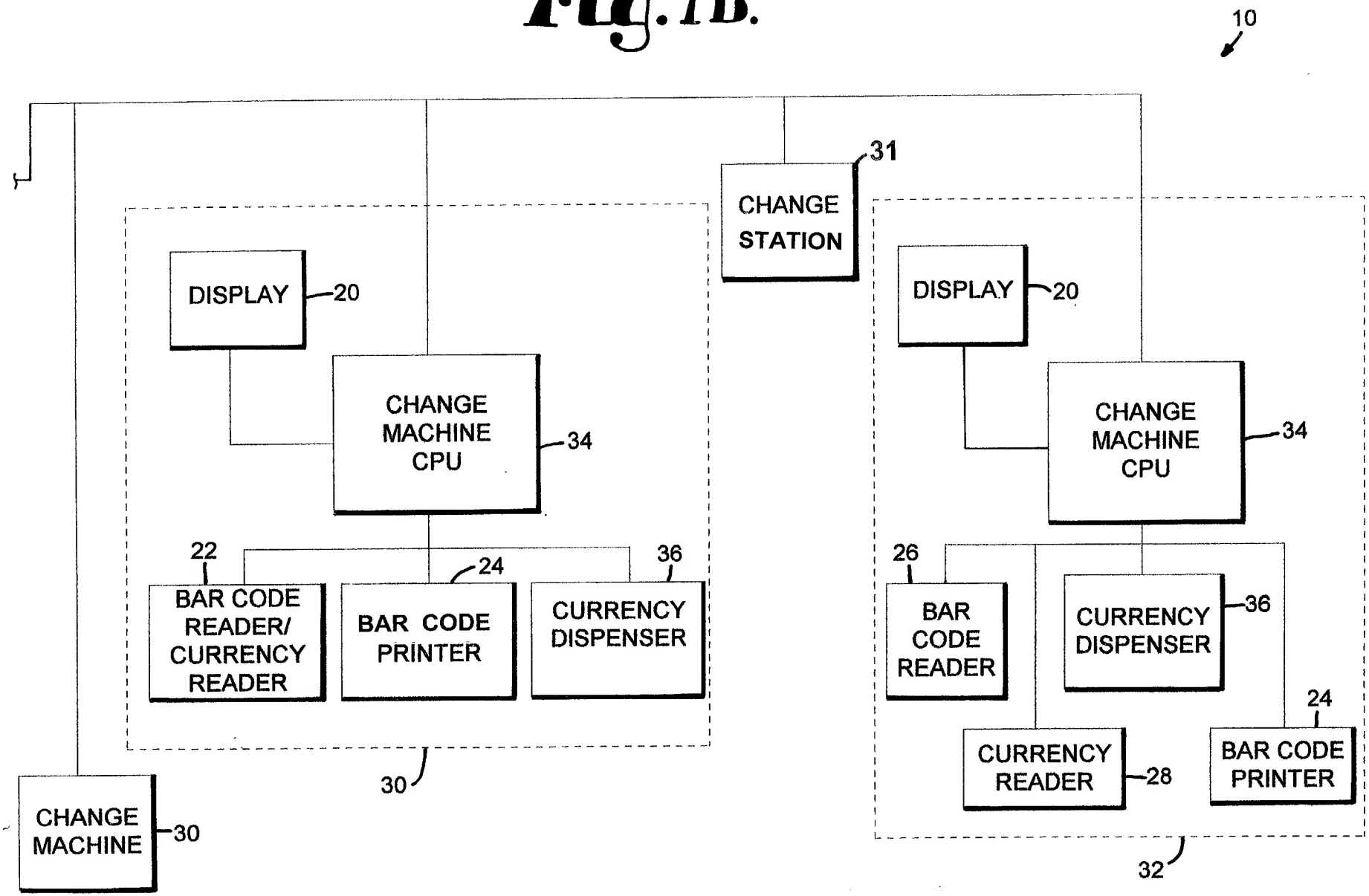


Fig. 1B.



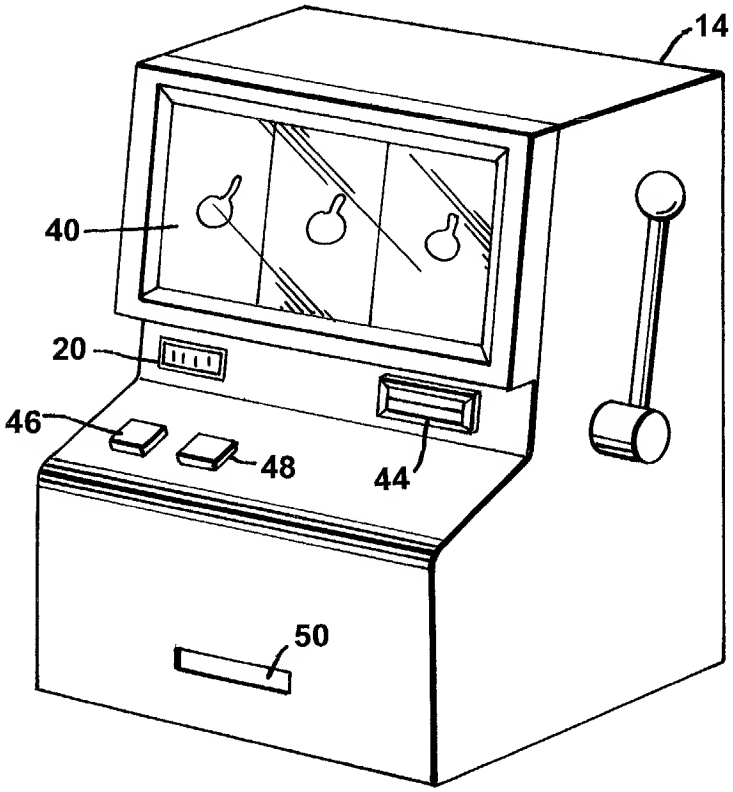


Fig.2.

Fig.3.

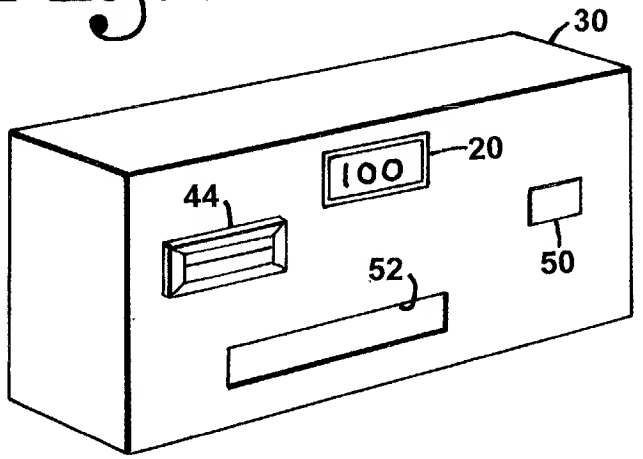


Fig.4.

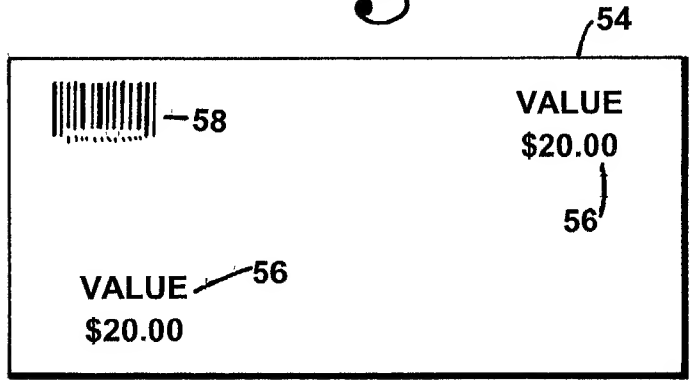


Fig.5.

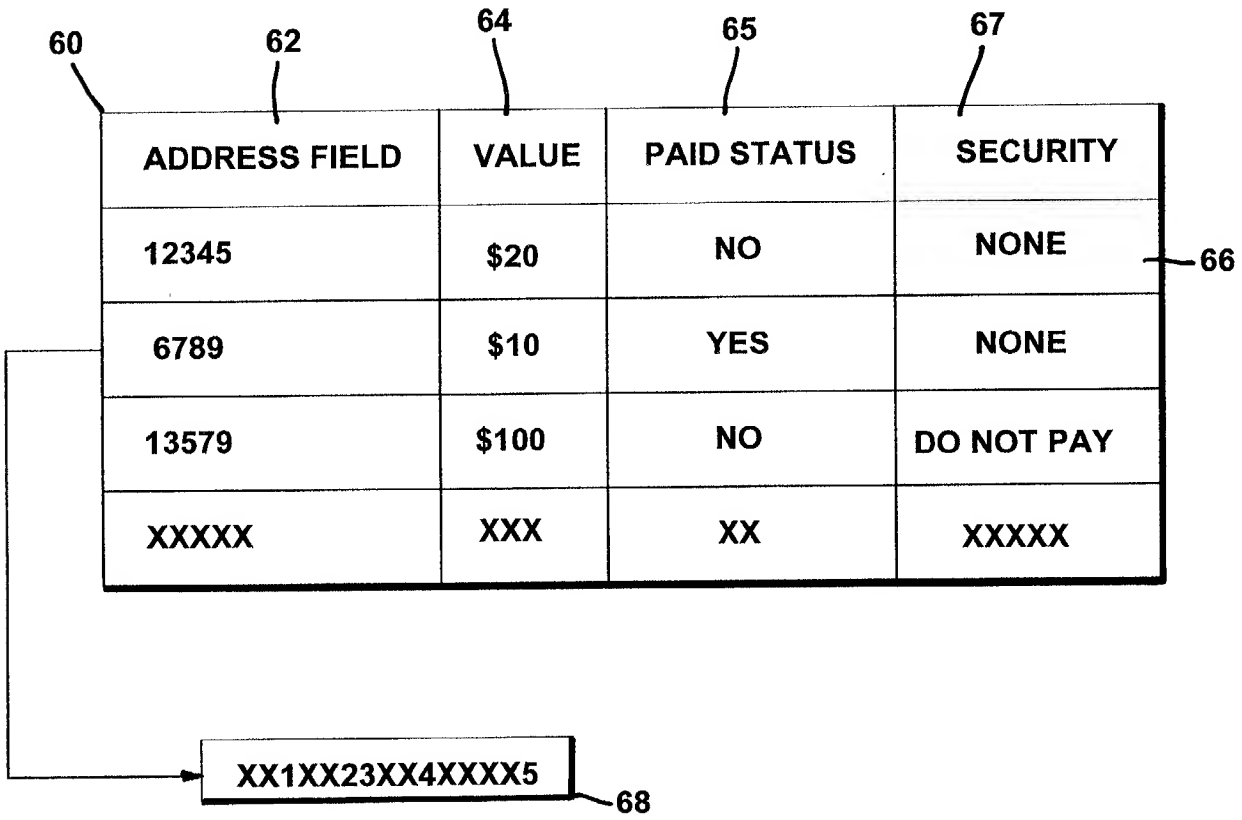


Fig.6.

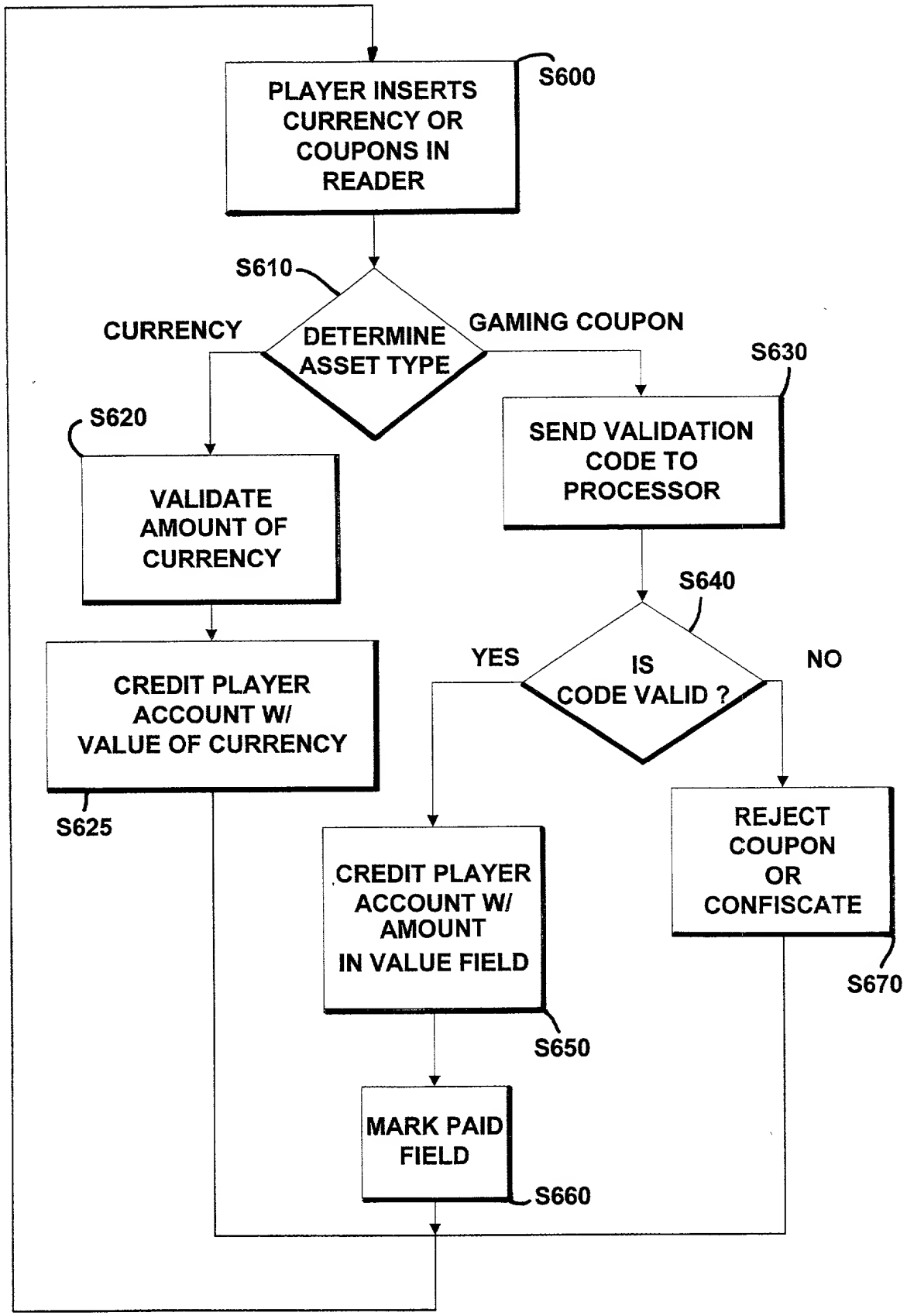
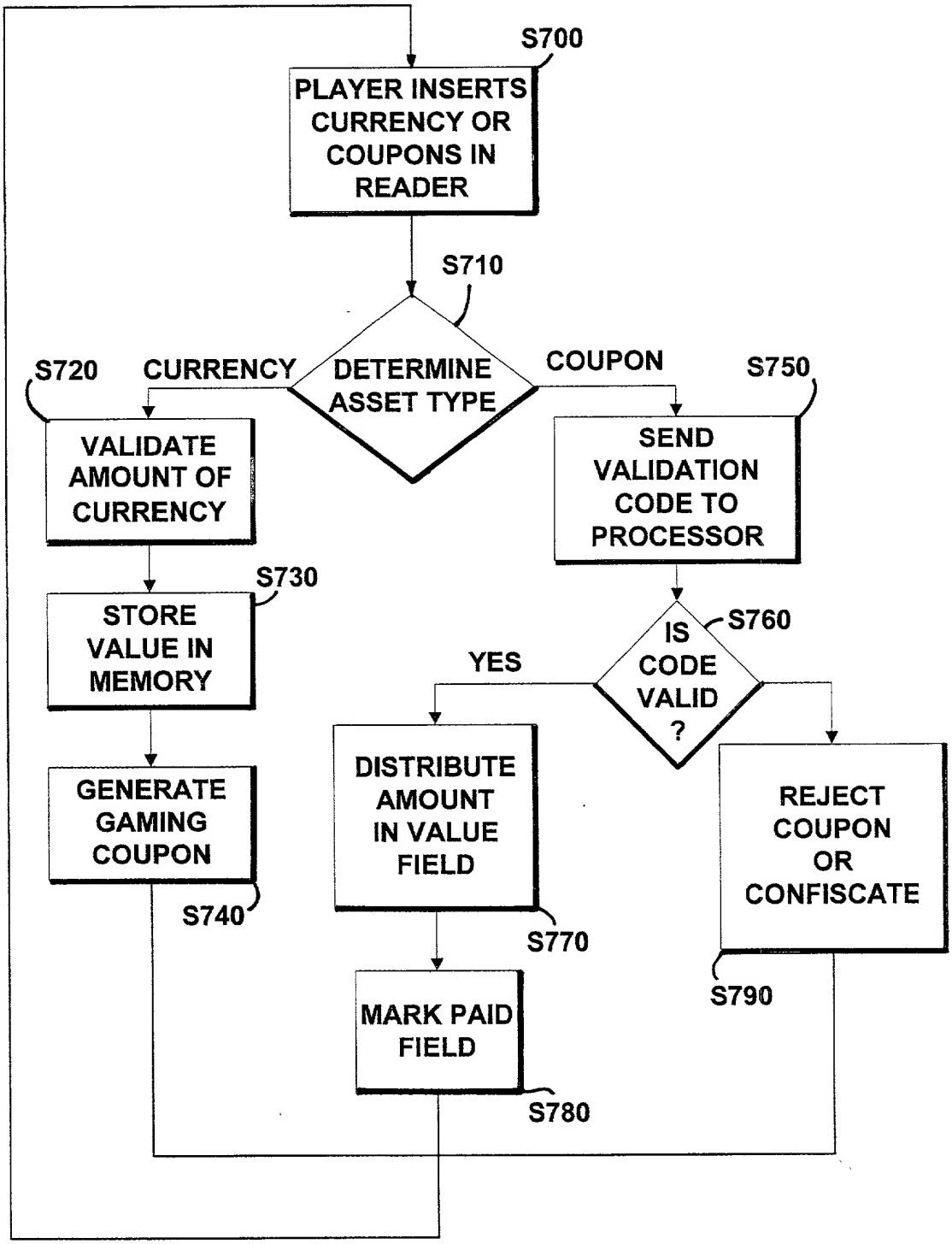

PLAYER INSERTS CURRENCY OR COUPONS IN READER
S600
S610
DETERMINE ASSET TYPE
CURRENCY
GAMING COUPON
S620
VALIDATE AMOUNT OF CURRENCY
S630
SEND VALIDATION CODE TO PROCESSOR
S640
IS CODE VALID ?
YES
NO
CREDIT PLAYER ACCOUNT W/ VALUE OF CURRENCY
S625
CREDIT PLAYER ACCOUNT W/ AMOUNT IN VALUE FIELD
S650
REJECT COUPON OR CONFISCATE
S670
MARK PAID FIELD
S660

Fig. 7.


S700
PLAYER INSERTS CURRENCY OR COUPONS IN READER
S710
DETERMINE ASSET TYPE
CURRENCY
COUPON
S720
VALIDATE AMOUNT OF CURRENCY
S730
STORE VALUE IN MEMORY
GENERATE GAMING COUPON
S740
S750
SEND VALIDATION CODE TO PROCESSOR
S760
IS CODE VALID ?
YES
DISTRIBUTE AMOUNT IN VALUE FIELD
S770
MARK PAID FIELD
S780
REJECT COUPON OR CONFISCATE
S790

DECLARATION FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled **METHOD AND DEVICE FOR IMPLEMENTING A COINLESS GAMING ENVIRONMENT** the specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed: NONE

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application: NONE

I hereby appoint the following attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith and to file and prosecute any corresponding foreign applications, including any international applications under the Patent Cooperation Treaty or the European Patent Convention: Carter H. Kokjer, Reg. No. 16,883; James H. Laughlin, Jr., Reg. No. 22,947; William B. Kircher, Reg. No. 22,481; James H. Marsh, Jr., Reg. No. 24,533; J. David Wharton, Reg. No. 25,717; Joseph B. Bowman, Reg. No. 25,807; Richard R. Johnson, Reg. No. 27,452; James H. Riley, II, Reg. No. 31,131; Joan Optican Herman, Reg. No. 31,968; Michael B. Hurd, Reg. No. 32,241; John A. Weresh, Reg. No. 32,332; Patrick A. Lujin, Reg. No. 35,260; Devon A. Rolf, Reg. No. 35,337; Michael J. Gross, Reg. No. 35,528; Daniel W. Shinn, Reg. No. 40,810; B. Trent Webb, Reg. No. 40,865; Susan J. Wharton, Reg. No. 41,524; Timothy C. Bickham, Reg. No. 41,618; Scott B. Strohm, Reg. No. 42,172; Clinton G. Newton, Reg. No. 42,930, telephone number (816) 474-6550. Address all correspondence to: William B. Kircher, SHOOK, HARDY & BACON L.L.P., One Kansas City Place, 1200 Main Street, Kansas City, Missouri 64105-2118.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor's signature: ______________________________

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